



# M3028BT-EPBM

MCU Board for Replacing M3028BT-EPB and M30290T2-CPE

## User's Manual (for replacement)

#### Keep safety first in your circuit designs!

• Renesas Technology Corporation and Renesas Solutions Corporation put the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

#### Notes regarding these materials

- These materials are intended as a reference to assist our customers in the selection of the Renesas Technology product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Renesas Technology Corporation, Renesas Solutions Corporation or a third party.
- Renesas Technology Corporation and Renesas Solutions Corporation assume no responsibility for any damage, or infringement of
  any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application
  examples contained in these materials.
- All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Renesas Technology Corporation and Renesas Solutions Corporation without notice due to product improvements or other reasons. It is therefore recommended that customers contact Renesas Technology Corporation, Renesas Solutions Corporation or an authorized Renesas Technology product distributor for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Renesas Technology Corporation and Renesas Solutions Corporation assume no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Renesas Technology Corporation and Renesas Solutions Corporation by various means, including the Renesas home page (http://www.renesas.com).
- When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Renesas Technology Corporation and Renesas Solutions Corporation assume no responsibility for any damage, liability or other loss resulting from the information contained herein.
- Renesas Technology semiconductors are not designed or manufactured for use in a device or system that is used under circumstances in which human life is potentially at stake. Please contact Renesas Technology Corporation, Renesas Solutions Corporation or an authorized Renesas Technology product distributor when considering the use of a product contained herein for any specific purposes, such as apparatus or systems for transportation, vehicular, medical, aerospace, puclear, or undersea repeater use
- specific purposes, such as apparatus or systems for transportation, vehicular, medical, aerospace, nuclear, or undersea repeater use.

   The prior written approval of Renesas Technology Corporation and Renesas Solutions Corporation is necessary to reprint or reproduce in whole or in part these materials.
- If these products or technologies are subject to the Japanese export control restrictions, they must be exported under a license from the Japanese government and cannot be imported into a country other than the approved destination. Any diversion or reexport contrary to the export control laws and regulations of Japan and/or the country of destination is prohibited.
- Please contact Renesas Technology Corporation or Renesas Solutions Corporation for further details on these materials or the products contained therein.

#### Precautions to be taken when using this product

- This product is a development supporting unit for use in your program development and evaluation stages. In mass-producing your program you have finished developing, be sure to make a judgment on your own risk that it can be put to practical use by performing integration test, evaluation, or some experiment else.
- In no event shall Renesas Solutions Corporation be liable for any consequence arising from the use of this product.
- Renesas Solutions Corporation strives to renovate or provide a workaround for product malfunction at some charge or without charge.
   However, this does not necessarily mean that Renesas Solutions Corporation guarantees the renovation or the provision under any circumstances.
- This product has been developed by assuming its use for program development and evaluation in laboratories. Therefore, it does not
  fall under the application of Electrical Appliance and Material Safety Law and protection against electromagnetic interference when
  used in Japan.



If the requirements shown in the "CAUTION" sentences are ignored, the equipment may cause personal injury or damage to the products.

Renesas Tools Homepage http://www.renesas.com/en/tools

#### 1. Outline

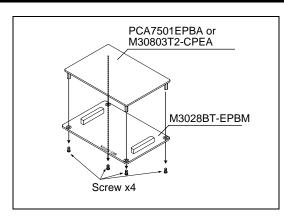
The M3028BT-EPBM is an MCU board for replacing the emulation probe M3028BT-EPB and the compact emulator M30290T2-CPE for M16C/Tiny Series.

### 2. Components

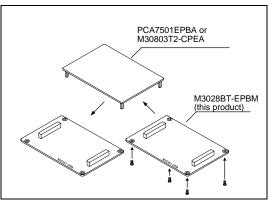
Package components

Description	Quantity
M3028BT-EPBM MCU board for replacing the M3028BT-EPB and M30290T2-CPE	1
M3028BT-EPBM User's Manual (for replacement) (This manual)	1
M3028BT-EPBM User's Manual (for replacement) (Japanese)	1

## 3. Replacing MCU Boards



- (1) Unscrew the four screws included with the M3028BT-EPB or the M30290T2-CPE.
- (2) Pull out the M3028BT-EPBM from the PCA7501EPBA of the M3028BT-EPB, or from the M30803T-CPEA of the M30290T2-CPE. Note that pull them out vertically, otherwise the connectors may be damaged.



- (3) Attach the new M3028BT-EPBM to the PCA7501EPBA of the M3028BT-EPB, or the M30803T2-CPEA of the M30290T2-CPE. The connecting directions are as follows
  - With the M3028BT-EPB

PCA7501EPBA J3 connector to M3028BT-EPBM J1 connector PCA7501EPBA J4 connector to M3028BT-EPBM J2 connector

- With the M30290T2-CPE

M30803T2-CPEA J3 connector to M3028BT-EPBM J1 connector M30803T2-CPEA J4 connector to M3028BT-EPBM J2 connector

- (4) Tighten the four screws in an even, crisscross pattern to secure the new M3028BT-EPBM with a screwdriver.
- (5) After replacing the board, perform the self-check to make sure that it is installed properly. For details on the self-check, refer to the user's manual of each product.

Figure 3.1 Replacing MCU boards

## 4. Precautions for Safety

#### **⚠** CAUTION

#### Cautions to Be Taken for Handling This Product:



- Before you replace the MCU board, shut off the power, otherwise internal circuits may be damaged.
- Insert or pull out the MCU board vertically, otherwise the connectors may be damaged.
- For the M3028BT-EPB, after replacing the MCU board, be careful about the direction for connecting to the
- The MCU board with 24MHz sticker for the M30290T-EPB and the M30290T2-CPE can be replaced with this product.

#### **Note on This product:**

• For inquiries about the product or the contents of this manual, contact your local distributor.

Renesas Tools Homepage http://www.renesas.com/en/tools